THE JIGSAW MESHING LIBRARY.

Jigsaw is a new Delaunay-based surface mesh generator designed for general non-linear and non-isotropic planar, surface and volumetric geometries. The library supports 2D Delaunay mesh generation using a variety of Delaunay complexes and a local Voronoi vector, as well as 3D Delaunay mesh generation using a variety of Delaunay complexes and a local Voronoi vector. Jigsaw supports a wide range of meshing algorithms, including circumcentre-based refinement, edge-refinement, and face-refinement. Jigsaw also supports a variety of meshing strategies, including volume-based, surface-based, and hybrid approaches.

OFF-CENTRES AND RESTRICTED DELAUNAY TESSELLATION:

High-quality mesh generation for general planar, surface and volumetric geometries.

25TH INTERNATIONAL MESHING ROUNDTABLE

OFF-CENTRES AND RESTRICTED DELAUNAY TESSELLATION:

High-quality mesh generation for general planar, surface and volumetric geometries.

RESTRICTED DELAUNAY TESSELLATION:

Restrictions include: 1) imposing a restriction using a variety of Delaunay complexes and a local Voronoi vector, 2) providing a variety of meshing algorithms, including circumcentre-based refinement, edge-refinement, and face-refinement, and 3) supporting a wide range of meshing strategies, including volume-based, surface-based, and hybrid approaches.

A RESTRICTED DELAUNAY-REFINEMENT ALGORITHM.

Following conventional methodology, an initial Delaunay tessellation is progressively refined by inserting additional nodes at the vertices of the resulting mesh. This process is typically driven by a set of predefined rules, which are designed to ensure that the resulting mesh satisfies a set of desired properties.

REFERENCES